

IN THE CLAIMS

Subt C¹ Amend claims 40 and 49, as follows:

B¹ 40. (twice amended) A microelectronic device structure including a top electrode layer on a top surface of a ferroelectric oxide or high ϵ oxide film material, said ferroelectric oxide or high ϵ oxide film material having a stoichiometric oxygen requirement, wherein a top surface region of the ferroelectric oxide or high ϵ oxide film material [at] including said top surface and said ferroelectric oxide or high ϵ oxide film material within [at] a depth [from said surface that is less than] of 25 Angstroms measured from said top surface has [an atomic composition of oxygen and constituent metals that are related in whole integer proportions to one another] an oxygen content equal to or in excess of said stoichiometric oxygen requirement of said ferroelectric oxide or high ϵ oxide film material.

B² Sub E3 49. (amended) A microelectronic device structure according to claim 40, wherein said top electrode layer [comprises an] is formed of Ir [material].

ADD NEW CLAIMS 51-60 AS FOLLOWS:

Sub E5 51. A microelectronic device structure according to claim 40, wherein the top electrode layer is formed of Ir or IrO₂.

Subt C² *B³* 52. A microelectronic device structure according to claim 40, wherein the top surface region of the ferroelectric oxide or high ϵ oxide film material has an oxygen content in excess of said stoichiometric oxygen requirement of said ferroelectric oxide or high ϵ oxide film material.

53. A microelectronic device structure according to claim 52, wherein said oxygen content in excess of said stoichiometric oxygen requirement of said ferroelectric oxide or high ϵ oxide film material is present in a lattice portion of said material in said top surface region.

54. A microelectronic device structure according to claim 52, wherein said oxygen content in excess of said stoichiometric oxygen requirement of said ferroelectric oxide or high ϵ oxide film material is present in grain boundaries of said material in said top surface region.

55. A microelectronic device structure according to claim 40, wherein the top electrode layer is formed of a pure noble metal.

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56. A microelectronic device structure according to claim 40, wherein the top electrode layer comprises a sputtered layer of pure metal formed in the absence, or non-incorporative presence, of oxygen.

57. A microelectronic device structure according to claim 40, wherein the top electrode layer has been formed on the top surface of a ferroelectric oxide or high ϵ oxide film material, by deposition thereon, and wherein prior to or subsequent to said deposition, the top surface region of the ferroelectric oxide or high ϵ oxide film material has been ion implanted with oxygen at ion implantation energies greater than 200 electron volts (eV), to provide an oxygen content in said top surface region that is in excess of said stoichiometric oxygen requirement of said ferroelectric oxide or high ϵ oxide film material.